

Freshwater Fisheries Monthly Report – February 2020

Habitat and Water Quality

Environmental review - Provided aquatic resource information for the following environmental review projects:

- State Highway Administration regarding a sediment removal project in Minnow Run, a tributary to the Youghiogheny River in Friendsville. Recommendations were made to include restoring instream fish habitat and planting the riparian zone with native tree and shrub species as part of the project.
- Reviewed and approved 10 pond stocking permit applications (locations included Baltimore City and Charles, Washington, Carroll and Frederick counties).
- State Highway Administration regarding a proposed sediment removal project from an unnamed tributary to Georges Creek. Recommendations were made for mitigation including planting the riparian zone with native plants, shrubs, and trees to replace riparian habitat loss. Instream habitat structure mitigation was recommended to provide a variety of aquatic habitat types for aquatic biota.
- Maryland Department of the Environment regarding an emergency instream time of year construction waiver request for a bridge abutment replacement along Dan's Rock Run, a tributary to Georges Creek. The Maryland Biological Stream Survey crew documented a naturally reproducing brook trout population in this stream during 2019. The department understands this is an emergency repair project and an instream construction time waiver is warranted. However, several recommendations were made regarding the waiver to protect the brook trout population.
- Maryland Department of the Environment regarding a request for a time of year waiver to remove a diversion structure in Jennings Run. The Jennings Run bridge repair project is nearing completion and the contractor would like to remove the diversion from the stream to complete the work. The project site is located in the lower portion of the stream where we have not documented a brook trout population, so we did not oppose the request.
- Environmental Review Program regarding the construction of a temporary bridge in the headwaters of Friends Creek for a logging operation. Bridges are the preferred method of stream crossing as there is little to no impact to the stream channel.
- Maryland Department of the Environment regarding the collection of sediment core samples from Arrowhead Cove in Deep Creek Lake for physical and chemical characterization of potential dredge material. Comments were made to minimize the duration and physical footprint of the collections.
- The Environmental Review Program regarding a culvert replacement on Rocky Gap Run. Recommendations were made to maintain fish passage and protect water quality during construction.
- A Maryland State Highway Administration project to replace failing culverts in the 100 year floodplain of Middle Creek in Frederick County.

Western Region Land Stewardship Committee - Provided supportive comments for the following potential land acquisitions:

- An eight acre property in the Fifteen Mile Creek watershed adjacent to Green Ridge State Forest. The Freshwater Fisheries Program supports this acquisition as it will provide for long term water quality protection in the Upper Potomac River watershed.
- A 156 acre property within the Youghiogheny River Wild and Scenic Corridor. The property contains 2,800 feet of Laurel Run which supports a native brook trout population. The Freshwater Fisheries Program fully supports this acquisition. One of the goals of the department's 2006 Brook Trout Fisheries Management is to increase public ownership of lands within watersheds that support brook trout populations. Freshwater Fisheries also supports acquisition of a 29 acre property near Swallow Falls State Park that borders about 700 feet of the river within the put-and-take trout fishing area. Acquisition of these two properties will provide angler access and long term water quality and stream habitat protection in the Youghiogheny River watershed.
- A 20 acre property adjacent to Warrior Mountain Wildlife Management Area. The property contains the headwaters of Traders Run, a tributary to the Potomac River. The Freshwater Fisheries Program supports the acquisition as it will provide for long term water quality protection in the upper Potomac River watershed.
- A 0.24 acre property adjacent to the entrance to Wolfden State Park. This small parcel is adjacent to the North Branch Potomac River and Short Run. This land, under public ownership, can provide riparian zone protection and angler access opportunities.

Broadford Lake Watershed Management Plan - The Broadford Elementary School's fifth grade class of 80 students will participate in a Meaningful Watershed Educational Experience (MWEE) within Broadford Lake Park. A team of natural resource professionals will help two teachers implement the project. Plans are to conduct long term water quality monitoring, trash clean up, shoreline and tributary tree/shrub planting, bird surveys, fish surveys, and establishment of a purple martin nesting colony.



Broadford Lake tributary riparian zone prior to tree and shrub planting project.

Acid Mine Drainage Treatment - Attended an informational meeting with staff from the U.S. Office of Surface Mining, Maryland Department of the Environment's Abandoned Mine Lands Division, Trout Unlimited and the Youghiogheny River Watershed Association to discuss grant opportunities to address acid mine drainage in western Maryland. The U.S. Office of Surface Mining Watershed Cooperative Grant Program (WCAP) announced that funds are available in 2020. Funds can be used for building new treatment systems as well as for the maintenance needs of existing acid mine drainage treatment systems. The funds are available to 501-C3 organizations who can work cooperatively with the appropriate state agencies to identify and implement the project. A follow up meeting will be held to identify priority project sites that would benefit brook trout populations.

Georges Creek Watershed Association - Attended the monthly meeting of Georges Creek Watershed Association. Discussed potential projects to remediate acid mine drainage in the watershed. The Office of Surface Mining is seeking new or maintenance projects to treat acid mine drainage in the Georges Creek Watershed. Grants are available to nonprofit conservation organizations.

Jennings Randolph Lake Fish Habitat Enhancement Project - Placed 45 recycled Christmas trees anchored with concrete blocks in Jennings Randolph Lake. The new fish structures will provide much needed fish habitat in a rather featureless area.



Fish habitat enhancement project in Jennings Randolph Lake near the Maryland boat ramp.

Eastern Region Habitat Enhancement - Deployed recycled Christmas trees into Wye Mills Lake, Unicorn Lake, and Smithville Lake. These fish habitat enhancement activities are conducted annually in cooperation with the Kent County Department of Public Works, which collects and delivers the trees. The groups of trees are sunk in areas where they will provide habitat and can improve fishing success for both boating and shoreline anglers.

Sugarloaf Mountain - Attended the first meeting of the Sugarloaf Stakeholders' Advisory Group. This group is helping Frederick County Government develop a localized plan to maintain the current rural character for the area around Sugarloaf Mountain. Freshwater Fisheries is providing information on current coldwater resources found in streams in that area. Conservation measures will be submitted to the group to protect these resources and unique aquatic communities.

Algal Bloom Conference - Participated cooperatively with the department's Resource Assessment Service and Maryland Department of the Environment staff at Virginia's Harmful Algal Bloom Conference. A summary of the freshwater Potomac River cyanobacteria study (2013-2015) and updates to the 2019 toxin results were provided remotely via webinar. The conference presentations focused on various threats of harmful algae across the region and collaborative efforts to obtain a standardized monitoring program. Ongoing discussions were made to establish a formal detection limit for recreational contact advisories region wide.

Reef Balls - Small concrete reef balls were constructed by the Maryland Park Service Maryland Conservation Corps at Merkle Wildlife Sanctuary (Prince George's County) and are scheduled to be placed into St. Mary's Lake (St. Mary's County) in March. These reef balls, along with natural wood structures, will be a much needed addition to the lake's habitat and benefit both small forage fish and larger predators.



Maryland Conservation Corps pours concrete to make reef balls.

Stocking and Population Management

Trout - Assisted Albert Powell and Unicorn Hatchery personnel with stocking of approximately 15,000 rainbow/golden trout into streams for preseason angling.

Provided stocking schedules to state and county park officials and managers as well as volunteers in the central region for the upcoming spring trout stocking season. Began posting regulation signs along regional streams and rivers.

Outreach

Trout in the Classroom - Worked with both Crellin and Friendsville Elementary Schools' Trout in the Classroom project. Both schools experienced mortality of their trout fry due to water quality issues. Staff provided guidance on how to correct the water quality issues and Hatcheries Program provided more rainbow trout fingerlings in order for the student to continue with their project.

Customer Service - Provided information for inquiries regarding: status of channel catfish in Herrington Manor Lake; trout fishing opportunities in Muddy Creek and Bear Creek; carp fishing opportunities in western Maryland; a poor fishing day in Town Creek; and angler access at Lostland Run.

Answered freshwater fisheries management questions and provided a presentation on Little Seneca Creek Tailwater and fishing opportunities in Montgomery County to the Seneca Valley Chapter of Trout Unlimited in Germantown, MD.

Provided a presentation on trout management and stocking strategies to improve trout fisheries to the Potomac-Patuxent Chapter of Trout Unlimited in Silver Spring, MD.

Outdoor Show - Manned the fisheries booth at the Great American Outdoor Show in Harrisburg, PA. The nine day show allows fisheries staff to promote the diverse fishing opportunities in Maryland and answer questions from event attendees.

Angler Access

Fishery Management Areas - Performed land maintenance at North Branch Potomac River fishery management areas. Posted fishing regulation information signs along special trout fishing areas in Garrett and Allegany counties.

Invasive Species

Catfish Diet Study - Completed winter collections of tidal Patuxent River blue catfish diet samples as part of a cooperative project with U. S. Geological Survey. Fish were collected from three river sections (upper, middle, lower) that represent a salinity gradient common to Chesapeake Bay tributaries. Collection methods included electrofishing, hoop nets, jug lines and bottom trawling. Fish were easiest to collect in the upper and middle sections of the river, where abundances are presumed to be higher. Fish collections in the lower portion of the river, from Hunting Creek down to St. Leonard's Creek and below (Calvert County) proved to be more difficult. A total of 488 fish, ranging in size from 12 to 41 inches and up to 40 pounds, were collected and examined. Roughly 30 percent of fish had contents in their stomachs. Food items included, but were not limited to: American eel, blue crab, gizzard shad, sea lamprey and white perch. This diet work is part of a larger project that aims to determine movement and habitat use of blue catfish within the tidal Patuxent River using radio and acoustic telemetry.



Variety of fish collected from a hoop net sample.

Invasive Catfish - Attended the second Mid-Atlantic Invasive Catfish Workshop that was held at Virginia Commonwealth University Rice Rivers Center in Charles City, Virginia. The workshop was facilitated by Bruce Vogt (NOAA Fisheries), who chairs the Invasive Catfish Task Force which is part of the Chesapeake Bay Program's Sustainable Goal Implementation Team. The workshop focused primarily on problem solving and served as a barometer of how important crafting a fishery management plan (FMP) for invasive catfish is to government and non-government agencies involved in invasive catfish management. Most agencies acknowledged the usefulness of an FMP to document departmental goals as they relate to invasive catfishes.

Participated in preliminary meetings to discuss the creation of a Maryland catfish FMP. With the introduction of two invasive catfish species, flathead catfish and blue catfish, there is concern regarding the impacts these species may have on native and naturalized fish populations and aquatic communities. An FMP for both resident and recently introduced catfishes would be a valuable tool in documenting populations, trends, public needs, and possible management recommendations.

Brook Trout Program

Worked with University of Maryland Center for Environmental Science Appalachian Laboratory (UMCES) researchers to develop research methodology and schedule for an eDNA State Wildlife Grant funded research project. This project will research the efficacy of using eDNA sampling for brook trout investigations. Initial field work will occur from April to June, with another round in the late fall.

Tidal Bass Program

Attended a joint meeting of biologists and managers from Virginia, Washington DC, and Maryland to finalize details of a joint tidal black bass project on the tidal Potomac River. This

effort is designed to promote cooperation and consensus among the many agencies that manage black bass populations in the tidal Potomac River. The project is scheduled to begin in March/April with each agency collecting bass from random samples and attaching imprinted Floy anchor tags near the posterior end of the dorsal fin. Anglers will be encouraged to collect data on the fish and report their information. All anglers will have their name added to a drawing for an annual prize.

Other

During fish collections on the tidal Patuxent River as part of a blue catfish diet study, Southern Region biologists electrofished a large striped mullet (*Mugil cephalus*) in Hunting Creek (Calvert County). The fish was the first collected by region biologists and a welcome, rare discovery. The fish was photographed and returned to the water.



An unusual find! A striped mullet collected from Hunting Creek in Calvert County.